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Emerging Economies, Institutional Voids, and Innovation Drivers: A Study in India

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EMERGING ECONOMIES, INSTITUTIONAL VOIDS, AND INNOVATION DRIVERS: A STUDY IN INDIA

ABSTRACT

Research has highlighted the importance of the institutional context on innovation and entrepreneurship. The focus of this qualitative research was to study small and medium enterprises (SMEs) in the manufacturing sector in India with the purpose of understanding how institutional voids affect the drivers of innovation. We find that in presence of regulatory institutional voids such as an absence of explicit innovation policy frameworks, technical support and information, trusted government administration and safety nets, and formal finance institutions, SME entrepreneurs take recourse to a range of normative and cognitive institutions to support their innovation goals. Specifically, the SMEs owners use local cultural norms and public awareness as reference framework as well as international quality norms standards. Moreover, information is sourced via informal ties and networks in the personal sphere and business contacts, both locally and internationally. A last critical norm observed is to function independently as an entrepreneur, while not engaging with regulatory institutions.

Keywords: Innovation, Small and Medium Enterprises, Innovation Ecosystem, Institutions, Institutional Voids

INTRODUCTION

A growing stream of research has highlighted the importance of the institutional context on innovation and entrepreneurship (Barbosa & Faria, 2011; Chowdhury, Terjesen & Audretsch, 2015; Simon-Moya, Revuelto-Taboada, & Guerrero, 2014; Mueller, Rosenbusch, & Bausch, 2013). In emerging economies characterized by institutional voids, i.e. with an absence of formal institutions (Khanna & Palepu, 2000), it becomes critical to understand how entrepreneurs continue to engage in innovation, especially by working with a range of informal institutions. Accordingly, the focus of this qualitative research was to understand how institutional voids affect the drivers of innovation by studying a carefully selected group of entrepreneurial small and medium enterprises (SMEs) in the manufacturing sector in India

We believe our research findings are important for a number of reasons. First, prior research (e.g. Khanna & Palepu, 2000; Tracy & Phillips, 2011) has established that when faced with the prospect of operating in institutional voids, leaders of both SMEs, as well as large industry incumbents, adopt a proactive approach in modifying and adapting firm strategies to suit the operating institutional context. Therefore, it is reasonable to imagine that SME leaders (entrepreneurs and managers) will develop similar proactive approaches while formulating and operating innovation strategies under institutional voids. Second, research (e.g. Ferreira, Fernandes, Alves, & Raposo, 2015; Williams, & McGuire, 2010) suggests that drivers of innovation arise both within and outside firm boundaries, including at the institutional level. Therefore, under institutional voids, since one or more drivers of innovation at the institutional level are either missing or weak, it is left to the ingenuity of the entrepreneur leader to develop alternate strategies that can still enable the firm to realize its innovation goals. Indeed, as our study reveals, founders and leaders in SMEs do demonstrate a careful, proactive approach in developing and implementing the firm's innovation imperatives while operating in institutional voids. Based

on analysis of field data, our study identifies a number of institutional voids that entrepreneurs must bridge. These include: the absence of explicit and formal innovation policy frameworks and governance directions, the absence of technical support and interaction with formal science and technology organizations, the absence of trusted governance institutions, with regard to administrative issues, registration, patents and taxation, amongst others, the absence of a social and economic safety nets provided by regulatory institutions, and the absence of formal credit institutions for innovation financing. We also find that entrepreneurs take help of several innovation drivers, which can operate even within a context characterized by institutional voids.

THEORETICAL BACKGROUND

Innovation: Types, Drivers, and the Entrepreneurial Context

Innovation has been defined as “the successful implementation of creative ideas” (Amabile, Conti, Coon, & Herron., 1996, p.1), or the “creation of new products, processes, knowledge or services by using new or existing scientific or technological knowledge, which provides a degree of novelty either to the developer, the industrial sector, the nation or the world and succeeds in the marketplace” (Galanakis, 2006, p. 1223). In other words, the act of innovation (i) spans a wide range of creative activities that could relate to either product or process; (ii) requires working with a set of factors operating at multiple levels, both inside and outside the firm; and (iii) because it necessarily involves commercialization of an idea, any assessment of innovation must take into account its connections with entrepreneurship (launching a new product or service, either through a startup or through the new venture division of an existing organization), and examine the institutional context where innovation interacts with entrepreneurship.

Types of Innovation: Identifying the various dimensions of innovation is a way to explain how innovation emerges in a specific operating context. Types of innovation could include process

innovation, product innovation, and business practice innovation, amongst others (OECD, 2005). Other scholars have also added to these categories the ideas of management innovation (Hamel, 2006), marketing innovation, functional innovation, and value-chain innovation (Kaplinsky & Morris, 2001). Another notable dimension of innovation is the distinction between incremental and radical innovation. The importance of incremental step-by-step innovation is often emphasized; much of innovation is quite mundane, being incremental rather than radical (Freeman 1994). Whatever be the type of innovation, there is no denying the fact that it arises in a specific institutional context and so studying the impact of the context is critical to develop a fine-grained, nuanced understanding of the innovation itself.

Innovation Theories: As noted in Galanakis (2006), Rothwell (1994) describes theories about innovation as having evolved over time, being classified historically into five generations of theories. In the 1950s, the Technology Push Theory was in vogue, which recognized that innovation happened as firms working with development of new and emerging technologies pushed them into the marketplace. This was followed in the 1960s by the Market Pull Theory, which identified customer needs and preferences as being an important factor leading to innovation. The 1970s-80s saw the emergence of the Coupling Innovation Process Theory, which incorporated elements of both technology push and market pull to arrive at a more realistic theory of innovation. The late 1980s saw the emergence of the Functional Integration Innovation Process Theory, which laid emphasis on several micro-level organizational processes as being the source of innovation within the firm, especially through the work of cross-functional specialist teams on a product or process problem. This was followed by the Systems Integration and Networking Innovation Process Theory, which is based on a consolidation of the previous theories of

innovation but lays emphasis on continuous change and networking influences, both within and outside the firm.

In assessing the contribution of the successive theories of innovation, there is no doubt that the latest theories encompass a range of factors and are able to explain quite comprehensively how and why innovation occurs. At the same time, the question arises as to how relevant and effective these theories are in explaining innovation in emerging economies, especially where firms operate within institutional voids.

Innovation Drivers: Recognizing innovation as the process through which firms acquire knowledge and transform it into a competitive advantage, Roper, Du & Love (2008) modeled the innovation as a value-chain incorporating three stage-wise activities: knowledge sourcing, knowledge transformation, and knowledge exploitation. At each of these stages, innovation is facilitated by certain drivers, which are both internal and external to the firm. Among the internal factors are the firm's capabilities and managerial processes focused on innovation (Damanpour & Aravind, 2011). Among external factors is the external environment, including the national system, location, networks, and pool of innovation professionals (Ferreira, *et al.*, 2015; Porter & Stern, 2001).

Innovation's Link with the Entrepreneurial Context. In view of its commercial imperative, innovation is inextricably linked with entrepreneurship. Conceptualizing innovation as "invention followed by implementation", Williams & McGuire (2010) suggest that especially in SMEs, the entrepreneur performs the critical role of taking forward the innovative idea generated through the successive stages of opportunity analysis, market validation, production, and sales and distribution. As such, it becomes beneficial to study innovation as embedded in an entrepreneurial context.

With regard to factors that facilitate entrepreneurship at the eco-system level, researchers have identified primarily two sets: (i) economic drivers, and (ii) institutional drivers. In the former category are included factors such as economic growth rates, unemployment, changing consumer preferences, and so on. The latter category comprises factors that operate as formal and informal institutions, which can elevate or constrain entrepreneurial behavior.

Innovation and Entrepreneurship in Emerging Economies: Institutions and Institutional Voids

Institutions have been variously classified as “rules of the game in a society” (North, 1990), the existence of “formal laws defining a playing field, facilitating the activities of certain players while constraining the efforts of others” (Hwang & Powell, 2005), and “prevalent methods of doing things in contexts” (Nelson, 1988). Other authors take a more broad-based view of institutions, classifying them into two categories: formal versus informal. In turn, these categories relate with the three “pillars” of institutions, identified by Scott (1995): regulatory, normative, and cognitive. Formal institutions consist of laws and regulation, which together comprise the “regulatory pillar”. By contrast, informal institutions comprise the remaining two pillars. These include culture, which serves as the “normative pillar”, providing cues that shape behavior in society and education, which comprises the “cognitive pillar”, reflecting the knowledge and skills possessed by the population (Simon-Moya *et al.*, 2014).

In assessing formal institutions that drive innovation, Barbosa & Faria (2011) identify several types. These include product market regulation, anti-trust policy and competition, entry regulation, intellectual property regime, and regulation of labor and capital markets. In contrast, informal institutions that have an impact on innovation are hard to identify, precisely because of their non-formal nature. The problem gets compounded when factoring in the existence of

institutional voids in emerging economies, which means that in these geographical contexts the formal institutions are either non-existent or weak. Therefore, as far as emergence of innovation in these contexts is concerned, the institutional factors that could possibly play a role would be informal institutions, both normative and cognitive. Edquist & Johnson (1997) confirm that innovation is an interactive learning process and institutions precisely perform the functions that structure and regulate human interaction in the innovation process. The functions include providing information (technology), stability, and predictability. It is unclear as to what the likely impact of institutional voids would be under these circumstances. Would this lead to the emergence of a range of informal institutions taking over the functions of regulative institutions? Would some informal institutions be more impactful than others, in facilitating innovation? Also, as a consequence of institutional voids, would some types of innovation be prevailing more than other types? We conduct our field-based qualitative study while keeping these questions in mind.

In order to explain firm behavior in emerging economies, especially under macro institutions or lack thereof, scholars are increasingly taking recourse to insights from institutional theory (Wright, Filatotchev, Hoskisson, & Peng, 2005; Tracey & Phillips, 2011). For example, scholars have noted the significant impact of institutional voids on firm strategy and performance in emerging economies, especially with regard to how firms utilize business group affiliation to tide over some of the downsides of operating in institutional voids (Khanna & Palepu, 2000; Manikandan & Ramachandran, 2015). Institutional voids have an even more significant impact on entrepreneurial ventures in emerging economies, with entrepreneurs making significant efforts to develop unique balances between formal and informal institutions (Puffer, McCarthy & Boisot, 2010). Among entrepreneurial technology firms, it appears that family businesses place an even higher reliance on bridging institutional voids through deep connections with outside stakeholders

such as the community (Miller, Lee, Chang & Breton-Miller, 2009) or in terms of their innovation search strategies within the cluster of firms where they are located (Wu & Wei, 2013). Going beyond the focus on the entrepreneurial venture itself, Ahlstrom & Bruton (2006) note that financial intermediaries such as venture capitalists operating in emerging economies place high importance on informal institutions in both assessing ventures to support as well as while managing the firms they funded.

Finally, institutional theory offers a useful perspective both for innovative entrepreneurial firms in emerging economies planning to go for internationalization as well as multinationals making an entry into an emerging economy characterized by institutional voids (Wright *et al.*, 2005). For example, in their research Peng, Wang & Jiang (2008) find that application of institutional theory offers a very useful perspective in analyzing how firms compete in and out of India as well as realize their growth objectives in China. Meyer, Estrin, Bhaumik & Peng (2009) suggest that not only does the absence or underdeveloped nature of institutions in emerging economies directly affect firm entry strategies but it also significantly increases the investor need for local resources. Similarly, Santangelo & Meyer (2011) find that presence of institutional voids increases upfront information search and adaptation costs on the part of multinationals. This would have a noticeable impact on the ways in which multinationals and domestic entrepreneurial firms in emerging economies would collaborate for the purposes of innovation and joint capability development.

THE STUDY

Research Design and Selection of Cases

In order to study how entrepreneur/leaders in SMEs operating in India identify, work with and otherwise modify innovation drivers within an operating context of institutional voids, we opted

for a qualitative research methodology. This is because qualitative research is particularly strong in exploring relatively unknown phenomena in the real-life context (Eisenhart, 1989). Using this methodology enables the researcher to inductively explore and identify concepts, noticeable similarities, trends, and patterns of socio-economic phenomena (Yin, 2003; Eisenhardt, 1989).

We conducted a series of in-depth qualitative interviews with owners and managers of SMEs in the manufacturing sector in Gujarat state, India in 2016. The research is implemented in a larger framework of research project exploring innovation in manufacturing SMEs in 10 African and Asian countries and assesses relationships with internal capabilities and external institutional factors. The qualitative research component of the project concerned amongst others an exploration and description of contemporary realities as perceived by manufacturing SME owners and managers in Gujarat, India. We focused on Gujarat State only because India as a whole is too diverse, with too many differences among the states to present a coherent qualitative exploration. To assure homogeneity, enabling comparison between companies, we selected the Indian SMEs by applying a set of criteria, including formally registered SMEs in manufacturing, between 10 and 150 employees, and owned by Indian entrepreneurs.

The interview approach was holistic and ‘semi-structured’. We visited the enterprise premises on-site and interactively asked open-ended questions about how they survive and expand, solve daily customer problems and organizational issues by coming up with new solutions, production techniques, processes, or investments in new products and ways of marketing. In determining whether the newness and improvements are innovation, we used an innovation assessment instrument (see annex 1). After clarifying the types and processes of innovation, we then asked how the entrepreneurs perceive and cope with the local environment.

In particular, we explored the external business and regulative and informal institutional context. As formal institutions (Scott, 1995), the regulatory institutions refer to policy and regulatory context, governmental innovation policies or programs and in particular intellectual property rights and “legally sanctioned” patent laws. We further discussed how the owner interacted with formal knowledge centers, such as universities, R&D centers, research organizations NGOs and/or international development agencies. We then focused the discussion on informal institutions, in particular, normative and cognitive as defined by Scott (1995). *Normative* institutions are “morally governed” value systems and preferences, giving prescriptive obligatory dimension to social life while *cognitive* institutions are “recognizable, taken for granted habits, i.e. “how we do things around here.” The regulatory, normative and cognitive institutions perform functions that structure and regulate human interaction in the innovation process, including providing opportunities, information (technology), stability, and predictability.

We wrote the case studies based on transcribed interview recordings, supplemented by observation gathered through site visits and visual observation. The writing up of the cases and the subsequent analysis of the data, identifying patterns and trends within the formal and informal institutions was an iterative process, occurring simultaneously with the data collection. Lastly, we reviewed the findings against literature for comparison and validation or to signal theoretical differences.

Regarding the validity of the research, in general, qualitative research does not claim to collect and analyze data from a representative sample to make generalizations. Instead, on a case-by-case basis, the qualitative analysis provides exploratory (inductive) insights into issues, processes, and systems in a bottom-up way that helps to suggest theoretical concepts for the local

context (Denzin & Lincoln, 1998). Therefore, this is the motivation that guided our data collection and analysis for this research study.

Case Summaries

Next, we provide a brief summary of the five cases for further analysis. In view of the in-depth nature of our study of the cases to isolate patterns, we believe that these five cases provide sufficient basis for making certain theoretical conclusions about the operating context and the SMEs involved in innovation therein.

The first case of the five selected companies is a textile company based in Ahmedabad, producing blue jeans for the domestic market. The owner decided to launch his own blue jeans brand. He adapts existing designs of large international jeans brands to the preferences of the Indian consumers. He is not exactly copying; as he puts it, “my brand design is basically from the big buyers but I add my own Indian touch.” The Indian touch involves particular consumer preference in shades, embroideries and accessories which are fashionable on the local market. He did purchase several new machines, based upon the advice from suppliers, to enable the production of high quality jeans. The machines enabled him to develop special designs.

The second case is a metal company manufacturing metal rings for bearing cages for the automotive industries. In 2008, a new owner with a commercial background took over the company and introduced more advanced technology for melting metal and fundamentally re-organized the management of the business. He spent a lot of time with the workers in the foundry to understand the production process and technical details. Moreover, he delegated responsibility and ownership to the workers in the foundry and bought an electric induction furnace from his neighbour.

The third case is a company producing micro-algae based waste water treatment systems for polluting chemical industries. However, in the case of extremely toxic molecules, the commonly used bacteria do not survive. A professor of Madras University and the company owner got acquainted and associated to develop a turn-key micro-algae system to reduce the harmful contaminants. The professor also discovered that a magnetic field can modify the intake of micro-algae. With the technology, it is possible to “programme” the algae the terms of their uptake. According to the owner, this is the only company in South Asia that is working in this particular technology.

The fourth case is a ceramics company producing floor tiles and has its own brand name. It is located in the small town of Morbi, a cluster of 700 ceramics and tile producers. The owner previously ran another company producing small-sized wall tiles – “We closed that enterprise because the machinery and technology were outdated.” On the same premises, he started to produce floor tiles instead because “day by day the demand increased”. From the beginning, the business did well and he enjoyed substantial growth in sales and revenues. The owner reports a “domestic market growth of 10% and export market growth of around 25%.”

The fifth case is a company produces and packages traditional Indian confectionery. The owner developed a concept based on an idea to promote Indian confectionery. He believes that Indian confectionery is one of the finest in the world, but not hygienic and not consistent in terms of quality. He started producing confectionery on an industrial basis involving food technology practice in convenient and ready-to-eat small packages. In addition, he did some media campaigns. The customers start to understand the freshness of the product, which at the same time is more hygienic and nutritious.

Most of the interviewed owners and managers in the companies described above in different ways introduced new products, processes, and technology in order to improve and expand their business operations. Following the definition that innovation is “the successful implementation of creative ideas”, Table 1 depicts the following innovations within the cases, which were impactful for the business.

 Insert Table 1 about here

FINDINGS AND ANALYSIS

As explained earlier, innovation newness can be classified in terms of a new product, or process, or concept/ practice, or function, or opening up a new market, or new sources of supply, or new ways of management and organization. The company cases studied actually reflect a broad spectrum of new technology, products, processes, and practices.

The innovations as identified in the cases (see table 1) did not concern ‘new to the world’, rather they were ‘new to the firm’ innovations. It was all adoption and adaptation of existing technology, products and business practices and organization. Only the micro-algae technology could be classified as a radical ‘new to the world’ innovation. Most owners and managers were well informed about the technology possibilities and alternatives for their manufacturing. The cases show that the innovation was initiated and owned by entrepreneurs. It was a careful step-by-step process of learning and re-investing profits, while minimizing risk. The innovation happened because there was an issue of survival, in other words, due to sheer necessity. Without innovation, it was difficult for them to survive in the market and in some cases, it was an issue of livelihood. So, the findings indicate that economic drivers were anyhow critical for initiating innovation.

Further, rather than the result of a radical technological invention, the cases demonstrate that innovation initiatives under the prevailing operating context was shaped as an aggregation of small insights and advances of exiting technology, products and practices through ‘learning by doing’. Next we focus our attention on findings vis-a-vis specific institutional drivers.

We compared and analyzed the data from the five cases in detail to identify trends and patterns referring to significant institutional drivers of innovation in the companies. Specifically, we identified voids in regulatory institutional frameworks and how these voids were bridged by the SME entrepreneurs and leaders through normative and cognitive “informal” institutions.

Case Blue Jeans

Regulatory institutional voids

The owner of the first case refers to large unregulated market of informal textiles in small businesses in Ahmedabad, which implies “tough competition”. Many informal competing businesses do not pay taxes and copy design illegally - “they want to bring their product to the market and fill their pockets.” The owner sees that informal and “black market” work does not bring benefits in the long run. He is determined to operate as a formal company complying with formal regulatory framework. “I am an honest businessman; I am willing to pay taxes so I can show my records.” However, although the basic formal business regulatory framework is in order, there are further no innovations or technical support policies or contacts with design institutions to could really help him to develop his business.

Normative and cognitive institutions

The owner picked up a lot of knowledge and experience from his family business in fabrics – “we used to go to my father’s shop after school.” From this background, he knows the ins and outs of textile quality, norms, and standards.

To address the competition and become a formally established brand, the owner decided to do something different by launching his own brand – “I am not doing what everybody else is doing.” His brand adapts existing designs of large international jeans brands to the preferences of the Indian consumers. His ambition to do something original in a formal business setting, reflecting Indian higher caste norm to operate as a formal business, gave the idea and direction of his business. In fact, he belongs to a Marwari community, which is mostly into the trading business and known for its business acumen. Compared to other lower castes, Marwaris have more formal business structures.

The owner’s feeling for fashion comes from experience, which he picked up by going out with “fashionable friends.” Today the owner keeps following both the designs of the global jeans producers and the Indian styles that are fashionable. The Indian consumers have different cultural preferences for the jeans, which made him learn that he needs to conform to this. He is scanning various media, including magazines, newspapers, and social media to know the Indian fashion standard. Machines suppliers also share information about newest technical possibilities in design and production. Skilled workers in his workshop bring in the required technical skills and know-how to produce the new design. He enjoys much support from his staff assuring that production goes well.

The owner is proud that he created his business himself, which comes with advantages – “if you are set free into the jungle then you create your own rules.” He did not accept any support from his family, which leaves him independent. Being a free and independent entrepreneur earns reputation and respect for his business.

Metal bearings cages

Regulatory institutional voids

The second case, the metal bearing company, performed well in the past in terms of product quality and technology, but not as regards financial performance: the company was making serious losses. When the new owner took over found out that the company was in serious trouble. No formal regulatory framework for financial support or technical advice was present to assist businesses in trouble. A bank loan was rejected due to the lack of collateral. Coming from a middle-class family, he did not own real estate. In fact, he tried to convince his father to put their ancestor house for collateral without success. Moreover, the owner did not have access to innovation policies or programs to support him. Nor did the company built have explicit links with science and technology organizations to provide him with idea and new knowledge for innovation to survive.

Normative and cognitive institutions

A decisive factor for the owner to invest and develop the business was the fact that the company was “a dedicated vendor” to a large international bearing manufacturer nearby. The large company was impressed by the production volume and quality. Mutual trust and the “helping one other” is the working culture among businesses nearby. The large company was willing to offer the company an informal financial arrangement to overcome temporary financial problems and invest in future. Moreover, one German buyer once visited and audited the company on behalf of the large buyer – “they provided me with technical advice how things work and what quality standard is expected.”

Another push was the relation with his workers. “I do not have an ego problem” as the director puts it: he sits down and talks with the workers while observing what is going on. The foundry workers suggested several technical improvements. “At that time I learned a lot from the workers. Only they know how to do it right.” The frequent contact and the fact that workers feel

free to express themselves provide good insight how improvements can be made. Moreover, the other the owner feels responsible for his workers and their families to keep their jobs in the future. These interactions push him to invest and develop the business further into a modern venture.

Lastly, in this case, another factor that worked was the friendly relation with his neighbor, an owner of a small business in electronic equipment. His neighbor and friend advised him to buy an induction furnace from him “because an induction furnace is a must for this industry.” The informal advice of his neighbor and friend has been very important. An owner is a non-technical person – “anytime I ask him for a technical problem, he comes within 10 minutes and resolves the issue.” The owner hopes to join forces with his neighbour because he sees a golden future together – “in five years we will just sit and monitor the successful production.”

Micro Algae

Regulatory institutional voids

The regulatory framework of the government is not facilitating the third case company to innovate and further develop the technology. In fact, the owner avoids interactions with the government with regard to patenting since the application procedure is too bureaucratic and not much advantage is expected at the end of the day. “We do not file and believe in patents. We have got technologies which are our own.” Moreover, the owner is cautious and somewhat disappointed with the government in fact. Formal institutions have not helped them so far – “the pollution control board has been the biggest problem for us.” They do not want to encourage new technology because “the environment will benefit but they lose their money gained from corruption.” There is a mental block about engaging with people and technologies that are new. The government and formal manufacturing sector are still being run by older and traditional people and families who have been in the same position for years now and do not innovate or think ‘outside the box’.

Normative and cognitive institutions

The owner sees an increasing awareness of the public to clean up the environment, which provides assurance about future business opportunities. Industrial pollution is a major problem in India and many companies are beginning to feel a responsibility to address the issue - “people are slowly waking up.” That change of mentality is motivating him to invest, seeing innovation opportunities and work further in the new technology. There are many owners willing to invest in technology if it is commercially viable.

The owner informally met with a university professor who discovered the technology. The owner gained the idea for further engineering and marketing in a business plan. The friendly relations converted into a business partnership where there were complementary skills were connecting thread, similarly, and they also had complementary skills which helped firm to shape up its business. They are confident that they do not need a patent; they can keep the technologies secure and protected by themselves. There is the norm that you trust your partners in the business.

The company has established collaboration with formal international partners and exchange technical knowledge. This trusted cooperation started in a friendly and informal way. A network of former business contact and friends also provide information about market and technology. The firm is getting some help from Confederation of Indian Industry’s start up and innovation division and it is trying to encourage this firm to get licences and registrations.

Ceramics floor tiles

Regulatory institutional voids

In the fourth case, the ceramics company operates in a context of a highly competitive international market. There is regular dumping in India and the international market of Chinese tile producers, which put even more stress on the market. The owner mentions that there are no

market regulations or policies to protect or support the local ceramics industry. There are no financial or technical support or innovation policies to improve competitiveness although the owner can work without too much trouble in the generic regulatory institutional framework. The interviewed SME owner and Ceramic Association in Morbi did not established links with university-based technology institutes for developing new ceramics, baking technologies or improving glazing chemistry.

Normative and cognitive institutions

The company is located in a well-known ceramics cluster in Gujarat. Eighty percent of all households are working in the ceramics subsector in one way or another, mostly in family-owned businesses. All companies pursue quality norms and standard assuring the cluster's reputation. There are pride and solidarity among the businesses and an sstrong ambition to compete with international producers and to become a global player is the norm.

There is a lot of interaction between the companies in the cluster. Awareness in the cluster is by them. Mostly people within the cluster belong to the similar community, so they have not connected due to business but religious and community values and these values encourage them to help a fellow business person in the cluster. The norm and understanding in the cluster that helping each other strengthen the cluster as a whole. Within the cluster, "everybody is looking at everybody. Ceramic products change all the time." Large contracts are shared.

Family business is also important. After graduation, the owner joined his family business – "fathers have businesses and, as sons, we have to be with them." They help each other in starting up a business and developing new products. When the owner of the company did so, he went to a relative "and asked what machinery is good, which supplier is reliable. We all share technical experience and knowledge."

Informal contacts with suppliers of raw input materials are important for innovation ideas and technical advice. There are several European suppliers who ask the SMEs to produce new designs. They supply original raw materials and suggest ways produce a new design. The relationship with the machinery and equipment suppliers is equally important. New technological possibilities are shared. The ceramics producers in Morbi formed a ceramics association, which interacts with the government on policy issues and rules and regulations.

Confectionary

Regulatory institutional voids

The owner of the fifth and last case, a confectionary company, is an ambitious young man who realized a business growth from 7 to 200 employees in five years time. The company is one of the fastest growing businesses nearby. Although there are a lot of schemes and subsidies and benefits provided by the government, the regulatory framework is not facilitating the business in further growing and developing due to a problem with bureaucracy. There is government support for start-ups but no clarity. To get into the system requires much time and much more follow up – “I could have developed another line of business with this time investment - so why spend time on that?” In particular, it requires a lot of time to establish a relationship with a government officer and understand their way of thinking. It appears that companies even keep government at a distance - the regulatory institutions cause more trouble than assistance.

Normative and cognitive institutions

Being independent entrepreneur works best. The key is his belief that Indian confectionery is one of the finest in the world. The problem is that it is hand-made and sold openly in the streets. Indian confectionery is seldom produced on an industrial basis involving food technology

practices. The owner already applies international quality practices and norms to whatever is produced in his factory with a view to future exports.

The company has its origins in a family-owned business of milk products. His grandfather started in 1912 in Bhavnagar, “but we had a family issue and a dispute. We were separated.” Therefore the owner has explicitly set up his company, not as a family business. Despite the family dispute, the owner’s family background is in food processing. He knows tastes, culture, standards, and norms of the food processing industry.

The owner is very much aware of the importance of being in contact with customers. Through casual and informal talks, the owner found out that consumers prefer loose sweets above packaged sweets – “the perception is that loose sweets are fresh.” He established friendly relationships with food processing technologists in universities overseas. Two years after setting up the business, he went to Dubai and Dusseldorf. He came across several food processing technologies. He organizes his staff to have informal and casual contacts with customers in shopping areas to collect marketing intelligence. Contacts with Indian friends and family overseas provide him with a confirmation of the demand in Indian communities overseas. He is a strong believer in Japanese management and a big fan of Toyota. He learned about lean management and just-in-time production and focuses on where he can cut costs, removing non-value additional items in the production process.

To summarize the analysis so far, our analysis of the cases reveals that absence of formal (regulatory) institutions leading to institutional voids made the informal institutional drivers of innovation more salient for all the five cases under study. Next, we further analyze the cases for regulatory institutional voids and assess how SMEs owners and managers turn to normative and cognitive institutions to bridge these voids.

Bridging Voids through Institutional Innovation Drivers

The first regulatory institutional void identified is the absence of explicit and formal innovation policy frameworks and governance directions, concerning business practice models and product standards for instance. This void lowers the confidence in and predictability for long-term innovation and investment choices and strategies with regard to risk-taking. The cases show that SME owners and managers turn to several alternative normative and cognitive institutions to overcome these voids: an orientation towards existing cultural norms and values in styles (jeans, confectionary) and public awareness (micro-algae). This conventional wisdom provides an alternative long-term perspective to hold on. Another institutional alternative concerns the international product quality norms and standards. SME owners and managers apply these on a voluntary basis assuming that it is the way of benchmarking their products (jeans, tiles, confectionary). Lastly, the attitude of having serious ambition as an entrepreneur, while showing perseverance and resilience, is part of India's business culture and much valued (tiles, confectionary).

The second identified void is the absence of technical support and interaction with formal science and technology organizations. The impact of this void is the lack of information and formal technical advice available for SME owners and managers. Innovation is not based on local technological invention; rather it concerns product and technology adoption and adaptation. As an institutional alternative, SME owners and managers seek technical answers and solutions in informal information exchanges 'friends help each other with technical knowledge' (bearing cages, jeans, micro-algae). It also constitutes the practice that business partners become friends and the other way around, friends become business partners and help each other with technical issues. On a larger scale, it is common that information and assistance is shared via informal

channels with overseas friends who happen to be experts in formal research organizations (micro-algae). Within the company, owners value and take recourse to informal knowledge and experience exchanges from the labor force. It is quite acceptable to express ideas and share technical knowledge freely and feel involved in the production and innovation process (bearing cages). A last informal carrier of technical knowledge and experience mentioned most cases are family traditions in a certain craft (jeans, tiles, confectionary). Owners and managers hold on and apply practices and standards set by their parents.

The third identified void is the absence of trusted governance institutions, with regard to administrative issues, registration, patents and taxation, amongst others. The issue of the complicated bureaucracy is often mentioned, which is neither very transparent nor logical, and often involves a certain degree of corruption within the regulatory institutions. This results in a lack of trust and predictability concerning future administrative obligations, which complicates the risk assessment and investment in innovation. There is little cooperation with government or business partners in innovation efforts; the innovation process is owned and managed in-house. As an alternative, SME owners and manager adopt an attitude to behave independently and avoid interactions with government and regulatory entities. There is actually a young business community in India emerging that does not engage in corruptive practices of old generations of government officials. The norm of being a free and honest entrepreneur drawing on internal strengths becomes highly valued (jeans, micro-algae, tiles, and confectionary). That also implies an inward looking mentality and orientation of protecting the new technologies, only to be shared within the business partners or informal group of friends (micro-algae)

The fourth identified void is the absence of a social and economic safety nets provided by regulatory institutions. In the event of an innovation or business failures, there is no fallback

position or assistance in any form from the regulative institutions. This implies that SME owners and manager are careful in their innovation behavior, by minimizing risk and emphasizing incremental innovation processes. As an informal institutional alternative, people within small communities as well as businesses, who interact on a regular basis, “normally” help each other with informal financial settlement arrangements (the bearing case).

The fifth and last identified void is the absence of formal credit institutions for innovation financing. The banking system is not an attractive source of finance for SMEs owners and managers. The high interest rates and complex paperwork is a critical issue. As a result, credit from a formal financial institution is avoided in most cases. It is common for SME entrepreneurs to find investment money from savings and informal loans from family members. This also results in a step-by-step approach, as opposed to radical innovation, involving minimal risk by investing and innovating incrementally after having completed large orders.

Table 2 summarizes these major findings of the research.

Insert Table 2 about here

Based on the findings, we advance two theoretical propositions, which are analytic generalizations from the field-data on the innovation journeys of entrepreneurs operating, in general, under institutional voids in emerging economies.

Proposition 1: Institutional voids (mainly the absence of formal institutions or the ‘regulatory pillar’) in emerging economies force SMEs to engage in short-term incremental technology adoption/ adaptation and related management practices, in contrast to developing a long-term focus on invention and breakthrough innovation.

Proposition 2: Under institutional voids arising from an absence of formal institutions, SME owners in emerging economies heavily engage in creative/innovative uses of informal institutions (family business traditions and customs, social values with regard to business ambitions, international quality norms and business networks in personal sphere) as innovation drivers to achieve innovation performance.

DISCUSSION AND CONCLUSION

The aim of the present qualitative study involving five SMEs cases in the manufacturing sector in India was to understand how the presence of institutional voids affects the institutional drivers of innovation in these firms. Additionally, it was also to identify how SME entrepreneurs interact with, take advantage of, and even “construct” informal institutional mechanisms to further their innovation objectives. The findings contribute to various strands of literature as well as managerial and policy implications, as discussed below.

Contribution to the Literature on Entrepreneurial Innovation

Even though there is a huge and burgeoning literature on organizational innovation in general, only a limited number of studies have examined innovation in entrepreneurial firms, especially post venture launch (Zhao, 2005). Research on institutional voids characterizing an entrepreneurial context and how entrepreneurs work with informal institutions to further their innovation objectives are even limited (Mair & Marti, 2009; Puffer *et al.*, 2010). This is where our study makes its first contribution. Our study confirms that under institutional voids characterized by an absence of explicit innovation policy frameworks, technical support and information, trusted government administration and safety nets and formal finance institutions, entrepreneurs take recourse to a range of informal institutions (normative and cognitive), which serve as powerful institutional drivers to further their innovation goals and strategies. Regulatory institutional voids

negatively affect the confidence and predictability for long-term innovation choices and strategies. As a result, innovation concerns technology adoption and adaptation, with a focus on management practices and not so much on technological invention, an insight also noted in Damanpour & Aravind (2011). There is a relative absence of cooperation in innovation efforts such as open innovation; the innovation processes is basically conducted in-house. Owners and managers minimize risk in innovation and turn to incremental innovation with limited possibilities for scaling up.

Specifically, the role of informal institutional drivers of innovation – normative and cognitive institutions – becomes absolutely critical. Yet, the normative and cognitive institutions that take over the functions of regulative institutions are hard to identify, precisely because of their informal nature. Our case analyses led us to identify several informal institutions that exercise functions of regulatory institutions, including providing information and technology, stability and predictability. A first area of cognitive institutions is that the SMEs owners use local cultural norms and public awareness as reference framework as well as international quality norms standards. Moreover, information is sourced via informal ties and networks in the personal sphere and business contacts, both locally and internationally. A norm that matters seems to be how to function independently as an entrepreneur, while not engaging with regulatory institutions, but relying more on the social and cultural contexts. In that regard, our study findings resonate with the innovative practices of entrepreneurial firms in another emerging economy, China (Phan, Zhou & Abrahamson, 2010)

Lastly, the innovation process that seems to evolve under institutional voids is also interesting. Lundvall, Joseph, Chaminade and Vang (2009) suggested that an innovation approach based on doing, using and interacting (DUI) is more useful understanding of innovation in

emerging economies. DUI focuses on innovations, on interactive and on the job learning through informal structures and relationships. It was a careful step-by-step process of learning and re-investing profits, while minimizing risk. This seems to characterize the process of innovation in SMEs operating under institutional voids. All of these findings have important insights for future research on the intersection of innovation and entrepreneurship in emerging economies, using both qualitative and quantitative approaches.

Contribution to the Literature on Institutional Voids

Second, our study contributes to the literature on institutions and institutional voids. So far, research on institutional voids has mostly concentrated on how large firms deal with institutional voids, especially by exercising membership in business groups as a strategic lever (Khanna & Palepu, 2000; Manikandan, & Ramachandran, 2015). There is a noticeable gap in the literature on examining the impact of institutional voids on firm strategy in SMEs, especially with regard to innovation. Our study attempts to show some pointers in this regard. We find that entrepreneurs are fully cognizant of the presence of institutional voids in their operating context and work out creative strategies to bridge these gaps through adopting/adapting normative and cognitive institutions, while being mindful of the limited resources available at their disposal. These insights open up a range of future research possibilities on examining more closely how institutional voids affect strategies and performance in entrepreneurial firms.

Contribution to the Literature on Firm Internationalization

A growing stream of literature on firm internationalization has examined the impact of the presence of institutional voids in a host country on entry strategies of multinational enterprises (MNEs) (Santangelo & Meyer, 2011). In general, MNEs take recourse to collaborating with carefully chosen local partners to avoid the downsides of operating under institutional voids (Gaur, Kumar,

& Singh, 2014). This also has reciprocal benefits for domestic firms playing a “catch-up role” in innovation, through access to foreign knowledge (Li, Chen, & Shapiro, 2010). Even though our study is qualitative in nature and with a relatively small sample of cases, it provides powerful insights as to how an MNE might consider its entry strategy into an emerging economy country with prevailing institutional voids, if the purpose of the entry was to build its own innovation capability within a host country. As our study shows, SMEs operating in an emerging economy engage in powerful strategies that maintain a focus on innovation even while bridging institutional voids. As such, the MNE can significantly benefit by collaborating with such SMEs.

As a corollary, our study findings also raise interesting questions about internationalization possibilities of SMEs focused on innovation within an emerging economy characterized by institutional voids. Researchers have suggested that this can be a strategic pathway for entrepreneurial firms to remain competitive, especially in the technology sector (Onetti, Zucchella, & McDougall-Covin, 2012). We found that in the presence of regulatory institutional voids, SMEs engage with informal institutions to continue with their innovation programs. A natural follow-up question would be what if the informal institutional drivers of innovation are not enough to further the firm’s innovation strategy and performance? Would that compel an SME from an emerging economy country to engage in internationalization? We believe this can be a fruitful area of future research.

Managerial and Policy Implications

As we noted, in the presence of institutional voids informal institutions representing normative and cognitive pillars acquire primacy. SME owners/entrepreneurs utilize these informal institutions to achieve their innovation goals and performance, using them as innovation drivers. Specifically, in the context of India entrepreneurs achieve this in a number of ways:

- Applying family and personal reference frameworks and local cultural values, and mirroring international quality standards replace the regulatory institutional void with regard to the ambitions, drive and learning to innovate.
- Informal information sharing about new technologies with trusted business partners, professional and personal network contacts, and the internal labor force replaces the regulatory institutional void with regard to knowledge provision of formal science and technology organizations.
- Behaving independently while avoiding government interactions and keeping innovations hidden replaces the regulatory institutional void with regard to a trusted government that is facilitating and supporting SMEs in terms of legal, tax and administrative issues.
- Concluding informal settlement arrangements for overcoming temporary financial constraints with business partners or with personal contacts in replaces the regulatory institutional void with regard to social security systems of the regulative institutions.

These observations, emanating from the field research, raise important managerial insights as well as have policy implications with regard to how innovation can be further fostered/developed in these and similar institutional contexts characterized by institutional voids.

Study Limitations

With regard the limitations of this study, it is important to emphasize that case study research does not seek to generalize its findings to a larger population. Rather, case study research advances emerging theoretical propositions for framing and grounding further (quantitative) research. The case study findings may complement, or contradict, existing innovation literature and provide a

basis and a reality check for developing hypotheses for innovation research in emerging economies. The actual testing of the new theories is beyond the scope of this paper.

REFERENCES

- Ahlstrom, D., & Bruton, G. 2006. Venture capital in emerging economies: Networks and institutional change. *Entrepreneurship Theory and Practice*, **30** (2), 299-320.
- Amabile, T., Conti, R., Coon, H. Lazenby, J., & Herron, M. 1996. Assessing the work environment for creativity. *Academy of Management Journal*, **39** (5), 1154-1184).
- Barbosa, N., & Faria, A.P. 2011. Innovation across Europe: How important are institutional differences? *Research Policy*, **40**, 1157-1169.
- Chattopadhyay, D., & Srivastava. B.N. 2007. The concept of newness. *International Journal of Management Concepts and Philosophy* **2**(3): 240-245.
- Carayannis, E. G., Evans, D., & Hanson, M. 2003. A cross-cultural learning strategy for entrepreneurship education: outline of key concepts and lessons learned from a comparative study of entrepreneurship students in France and the US. *Technovation*, **23** (9), 757-771.
- Chowdhury, F., Terjesen, S., & Audretsch, D. 2015. Varieties of entrepreneurship: institutional drivers across entrepreneurial activity and country. *European Journal of Law and Economics*, **40**, 121-148.
- Damanpour, F. & Aravind, D. 2011. Managerial innovation: Conceptions, processes, and antecedents. *Management and Organizational Review*, **8** (2), 423-454.
- Denzin, N. K., & Lincoln, Y.S. 1998. The landscape of qualitative research: Theories and issues. Thousand Oaks: Sage publications.

- Edquist, C., & Johnson, B. 1997. 'Institutions and organisations in systems of innovation', in C. Edquist (ed.) *Systems of Innovation: Technologies, Institutions and Organizations*. London and Washington: Pinter/Cassell Academic
- Eisenhardt, K.M. .1989. Building theories from case study research/ *Academy of Management Review*, 14(4), 532-550.
- Fernandes, C.L., Ferrira, J.J.M., & Raposo, M.L. 2013. Drivers to firm innovation and their effects on performance: An international comparison. *International Entrepreneurship and Management Journal*, **9**, 557-580.
- Ferreira, J.J.M., Frenandes, C.I., Alves, H., & Raposo, M.L. 2009. Drivers of innovation strategies: Testing the Tidd and Bessant (2009) model. *Journal of Business Research*, **68** (7), 1395-1403.
- Freeman, C. 1994. Innovation and growth. *The handbook of industrial innovation*, 78-93. Cheltenham, UK: Edward Elgar.
- Galanakis, K. 2006. Innovation process: Making sense using systems thinking. *Technovation*, **26**, 1222-1232.
- Gaur, A. S., Kumar, V., & Singh, D. 2014. Institutions, resources, and internationalization of emerging economy firms. *Journal of World Business*, **49** (1), 12-20.
- Hamel, G. 2006. The why, what and how of management innovation. *Harvard Business Review*, 84 (2), 72-84.

- Hwang, H., & Powell, W. 2005. Institutions and entrepreneurship. In Alvarez, S.A., Agarwal, R. and Sorenson, O. (Eds.), *handbook of Entrepreneurship Research: Interdisciplinary perspectives*. New York: Springer, 201-232.
- Johannessen, J. A., Olsen, B., & Lumpkin, G. T. 2001. Innovation as newness: what is new, how new, and new to whom? *European Journal of Innovation Management*, **4** (1), 20-31.
- Kaplinsky, R., & Morris, M. 2001. *A handbook for value chain research* (Vol. 113). Ottawa: IDRC.
- Khanna, T., & Palepu, K. 2000. The future of business groups in emerging markets: Long-run evidence from Chile. *Academy of Management Journal*, **43** (3), 268-285.
- Kline, S.J. and N. Rosenberg. 1986. "An overview of innovation." In *The Positive Sum Strategy: Harnessing Technology for Economic Growth* edited by R. Landau and N. Rosenberg, 275-305. Washington, DC: National Academies Press.
- Kotabe, M., & Scott Swan, K. 1995. The role of strategic alliances in high-technology new product development. *Strategic Management Journal*, **16** (8), 621-636.
- Li, J., Chen, D., & Shapiro, D.M. 2010. Product innovations in emerging economies: The role of foreign knowledge access channels and internal efforts in Chinese firms. *Management and Organizational Review*, **6** (2), 243-266.
- Lundvall, B.-Å., K. Joseph, C. Chaminade and J. Vang. 2009. *Handbook of Innovation Systems and Developing Countries - Building Domestic Capabilities in a Global Setting*. Cheltenham: Edward Elgar Publishing.

- Mair, J., & Marti, I. 2009. Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing*, **24** (5), 419-435.
- Manikandan, K.S., & Ramachandran, J. 2015. Beyond institutional voids: Business groups, incomplete markets, and organizational form. *Strategic Management Journal*, **36**, 598-617.
- Markard, J., & Truffer, B. 2006. Innovation processes in large technical systems: Market liberalization as a driver for change? *Research Policy*, **35**, 609-625.
- Meyer, K.E., Estrin, S., Bhaumik, S.K., & Peng, M.W. 2009. Institutions, resources, and entry strategies in emerging economies. *Strategic Management Journal*, **30** (1), 61-80.
- Miller, D., Lee, J., Chang, S., & Breton-Miller, I.L. 2009. Filling the institutional void: The social behavior and performance of family vs non-family technology firms in emerging markets. *Journal of International Business Studies*, **40** (5), 802-817.
- Mueller, V., Rosenbusch, N., & Bausch, A. 2013. Success patterns of exploratory and exploitative innovation: A meta-analysis of the influence of institutional factors. *Journal of Management*, **39** (6), 1606-1636.
- Nelson, R. 1988. Institutions supporting technical change in the United States. In Dosi, G., Freeman, C., Nelson, R., Silverberg, G. and Soete, L. (Eds.), *Technical change and economic theory*, London: Pinter Publishers.
- North, D. 1990. *Institutions, institutional change, and economic performance*. Cambridge, UK: Cambridge University Press.
- Nelson, Richard R. and Sidney G. Winter. 1982. *An Evolutionary Theory of Economic Change*. Cambridge: Bellknap Press.

- OECD. 2005. The Measurement of Scientific and Technological Activities: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data – Oslo Manual. Paris: Organization for Economic Co-operation and Development (OECD), Eurostat.
- Onetti, A., Zucchella, A., Jones, M. V., & McDougall-Covin, P. P. 2012. Internationalization, innovation and entrepreneurship: business models for new technology-based firms. *Journal of Management & Governance*, **16** (3), 337-368.
- Peng, M.W., Wang, D.Y.L., & Jiang, Y. 2008. An institution-based view of international business strategy: a focus on emerging economies. *Journal of International Business Studies*, 39 (5), 920-936.
- Phan, P., Zhou, J. & Abrahamson, E. 2010. Creativity, innovation, and entrepreneurship in China. *Management and Organizational Review*, **6** (2), 175-194.
- Porter, M. 1985. *The Competitive Advantage: Creating and Sustaining Superior Performance*. New York, NY: Free Press.
- Porter, M. 1990. *The Competitive Advantage of Nations*. London: MacMillan.
- Porter, M.E., & Stern, S. 2001. Innovation: Location matters. *MIT Sloan Management Review*, 42 (4), 28-36.
- Puffer, S.M., McCarthy, D.J., & Boisot, M. 2010. Entrepreneurship in Russia and China: The impact of formal institutional voids. *Entrepreneurship Theory and Practice*, **34** (3), 441-467.
- Roper, S., Du., J., & Love, J.H. 2008. Modelling the innovation value chain. *Research Policy*, **37**, 961-977.

- Rothwell, R. 1994. Towards the fifth-generation innovation process. *International Marketing Review*, **11** (1), 7-31.
- Santangelo, G. D., & Meyer, K. E. 2011. Extending the internationalization process model: Increases and decreases of MNE commitment in emerging economies. *Journal of International Business Studies*, **42** (7), 894-909.
- Schumpeter, Joseph. 1934. *The Theory of Economic Development*. Cambridge: Harvard University Press.
- Scott, W. R. 1995. *Institutions and organizations. Foundations for organizational science*. London: A Sage Publication Series.
- Simon-Moya, V., Revuelto-Taboada, L., & Guerrero, R.F. 2014. Institutional and economic drivers of entrepreneurship: An international perspective. *Journal of Business Research*, **67**, 715-721.
- Tether, Bruce. 2003. What is Innovation? - Approaches to distinguishing new products and processes from existing product and processes. Working Paper No. 12, ESRC Centre for Research on Innovation and Competition (CRIC), University of Manchester.
- Tidd, J., & Bessant, J. 2009. *Managing innovation: Integrating technological, market, and organizational change*. Chichester, UK: John Wiley & Sons.
- Tracey, P., & Phillips, N. 2011. Entrepreneurship in Emerging Markets: Strategies for new venture creation in uncertain institutional contexts. *MIR: Management International Review*, **51** (1), 23-39.

- Williams, L.K., & McGuire, S.J. 2010. Economic growth and innovation implementation: The entrepreneurial drivers of growth? Evidence from 63 countries. *Small Business Economics*, **34** (4), 391-412.
- Wright, M., Filatochev, I., Hoskisson, R.E., & Peng, M.W. 2005. Strategy research in emerging economies: Challenging the conventional wisdom. *Journal of Management Studies*, **42** (1), 1-33.
- Wu, A., & Wei, J. 2013. Effects of geographic search on product innovation in industrial cluster firms in China. *Management and Organizational Review*, **9** (3), 465-487.
- Xu, D., & Meyer, K.E. 2013. Linking theory and context: 'Strategy research in emerging economies' after Wright et al. (2005). *Journal of Management Studies*, **50** (7), 1322-1346.
- Yin, R. 2003. *Case Study Research: Design and methods*. Thousand Oaks, CA: Sage Publications.
- Zhao, F. 2005. Exploring the synergy between entrepreneurship and innovation. *International Journal of Entrepreneurial Behavior & Research*, **11** (1), 25-41.

Table 1
Companies and Specific Innovations

Company case	Innovations (What is new?)
1. Blue Jeans	Adapted blue jeans design
	Technology to make special designs
2. Bearing cages	Engagement of technical workshop staff
	Induction furnace
3. Micro-algae water treatment	New process of water treatment
	‘Turn-key’ water treatment systems
4. Food processing	Involving food technology in process
	Packed and clean Indian confectionary
	Media campaign
5. Ceramics floor tiles	Existing kiln technology from China and Italy
	New tiles design

Table 2: Regulatory institutional voids, impact and normative and cognitive institutions utilized to overcome voids.

Regulatory institutional voids	Impact on SMEs innovative behavior	Normative and cognitive institutions that bridge voids
Absence of formal innovation policy framework and governance directions (business practice models and product standards).	Low confidence and few references to facilitating learning and decision-making for long-term innovation strategies, resulting in short-term innovation practices.	<ul style="list-style-type: none"> – Family business models serve as reference framework for learning how to run a business and innovate. – Informal benchmarking with international quality norms and standards. – Strong ambition for long-term growth becoming a ‘global player’ is a shared cultural value and role model within the Indian entrepreneurship community.
Technical support and interactions with formal science and technology organizations are not present.	Innovation in SMEs is limited to low technology adoption and adaptation, and management practices rather than original and advanced technological inventions.	<ul style="list-style-type: none"> – Business partners become acquainted and trusted and share knowledge openly about advanced technology. – It is common practice that professional and personal networks provide technical assistance on an informal basis. – Labor force of SMEs is casually consulted for new technical knowledge. – It is a routine to search for information on advanced technology open access available on internet and social media.
There is not a trusted government with regard to innovation protection (patents) and administrative issues	SMEs do not engage in open innovation or disseminate codified knowledge, which results in low levels of cooperation, interaction, and network learning. Entering in new business contracts with new business requires scrutiny and trust. SMEs prefer to stick to the same business partners.	<ul style="list-style-type: none"> – The informal ‘rule of the game’ is to behave independent while avoiding interactions with the formal administration institutions. – The ‘way of doing’ is keeping innovation processes hidden in-house, while only sharing new insights with trusted business partners, or informal and personal networks. – Habit of looking for and extensive checking references of potential business partners via informal networks.
Formal regulative institutions with respect to social/economic safety nets are weak.	Owners and managers innovate incrementally to minimize risk. Instead of expensive technological innovation, low-cost management and organizational innovations are implemented	<ul style="list-style-type: none"> – Businesses help each other with informal arrangements in overcoming temporary financial constraints and trade credit. – It is a custom in India of family members and personal contact helping in case of business failure
Limited and complex access to formal financial institutions.	SMEs implement step-by-step innovation processes, financed by informal credit and occasional business profits and savings. There is limited and slow up-scaling and up-grading of businesses.	<ul style="list-style-type: none"> – It is common practice that informal credit is made available among personal and family contacts

Annex 1: Qualitative assessment instrument

Overall definition: 'Innovation is the introduction (process) of something new that creates value'

Newness:

Criterion	Operationalization
1.1: The new 'something' (newness) concerns one of the types of innovation agreed on in the literature (Schumpeter 1934, Kaplinsky and Morris 2001, Johannessen et al. 2001).	Newness can be classified either in terms of a new product, or process, or concept/ practice, or function, or opening up a new market, or new sources of supply, or new ways of organization.
1.2: The newness introduced represents a difference from the past within the specified unit of analysis (Chattopadhyay and Srivastava 2007, Johannessen et al. 2001, Kotabe and Swan 1995).	A point in time can be determined/identified that distinguishes between the times where the 'something new' did and did not exist in the unit of analysis.
1.3: The producers and users perceive and acknowledge the newness as a breakthrough; a major achievement or success that permits further progress (Freeman 1994, Porter 1990).	It can be demonstrated that a few started to introduce the newness, to be later followed by others (early innovators -> adopters) on a larger scale.

Value creation:

Criterion	Operationalization
2.1: More value is added by the firm either through lower input costs or higher sales revenues (Porter 1985).	A causal explanation can be attributed to the introduction of the newness and lower input costs or higher sales revenues.
2.2: More value is generated by improving advancing the unit of analysis' competitive position in local, national or international markets (Porter 1985, 1990).	Market expansion and, entry into new markets can be demonstrated after the introduction of the newness.

Process:

Criterion	Operationalization
3.1: The introduction of the newness is typically an unstructured process of three component elements (Nelson and Winter 1982, Dosi and Nelson 1994, Kline and Rosenberg 1986, Tether 2003).	Within the unit of analysis, three component elements of the process can be identified: (i) creativity and the search for ideas ; (ii) development and testing, and; (iii) application, implementation, investment, and commercialization.
3.2: The introduction of newness is typically a learning process within the unit of analysis (Dosi 1988, Mytelka and Smith 2001).	Feedback during the process can be demonstrated to improve or build upon the original idea and instigates another cycle of the 3 step-process described in criterion 3.1.
